



AF/2833

[10191/1674]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicants : Ernst HELD et al.
Serial No. : 09/742,980
Filed : December 20, 2000
For : ELECTRICAL CONNECTOR HAVING GUIDE AND
CENTERING AID
Examiner : Alexander GILMAN
Art Unit : 2833
Confirmation No. : 8646

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Jong H. Lee

**APPELLANTS' REPLY BRIEF IN RESPONSE TO
EXAMINER'S ANSWER (UNDER 37 C.F.R. § 1.193)**

S I R :

In response to the Examiner's Answer mailed on September 8, 2003 regarding the above-identified application, Applicants submit the following arguments in support of the appeal of the final rejection.

RELATED APPEALS AND INTERFERENCES

The Examiner's Answer indicates that Applicants' Appeal Brief does not contain a statement identifying the related appeals and interferences. However, Applicants' Appeal Brief clearly indicated that "[n]o appeal or interference which will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal is known to exist to the undersigned attorney or is believed by the undersigned attorney to be known to exist to Applicants."

ARGUMENTS

A. THE REJECTION OF CLAIMS 1, 2, 4 and 5 UNDER 35 U.S.C. § 102(e)

Claims 1, 2, 4 and 5 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,234,817 to Hwang et al. ("Hwang"). Applicants respectfully submit that the rejection should be reversed for the following reasons.

To anticipate a claim under § 102, a single prior art reference must identically disclose each and every claim element of the claim invention, *arranged as in the claim*. See Lindeman Maschinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1458 (Fed. Cir. 1984). If any claimed element is absent from a prior art reference, it cannot anticipate the claim. See Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997).

Independent claim 1 recites:

An electrical connector, comprising:

- a plug connector having a guide element;
- a single composite mating connector having a recess, the recess being dimensioned so that during an insertion process of the plug connector into the mating connector, the guide element is guided into the recess, and in an inserted state, the recess is set apart from the guide element.

In the Appeal Brief, Applicants made the following argument:

While Hwang does disclose an electrical connector having a guide element (guiding rod – 24) and a recess (receiving passage – 14) for receiving the guide element, Hwang does not, in fact, disclose **a recess being dimensioned so that during an insertion process the guide element is guided into the recess and in an inserted state the recess is set apart from the guide element.** Instead, Hwang discloses a plug connector (20) having a pair of guiding rods (24), which include a tapered tip (24a), that are received in the receiving passage (14) of the receptacle connector when the plug connector and receptacle connector are engaged. (See FIGs. 1, 2, 4; col. 2, ll. 32-45). When the two connectors are fully engaged and mated, the tapered tips of the guiding rods extend beyond the receiving passage; however, **in this inserted state, both guiding rods are fully within, and not set apart from, the receiving passage.** (See FIG. 4). (Appeal Brief, p. 6).

In response, the Examiner contends in the Examiner's Answer that "set apart" should be interpreted to mean "kept separate," i.e., "[e]ven being fully within the recess, the guide element can be set apart from the recess **if its cross-sectional size is smaller than that of the recess with the given tolerance.**" (Examiner's Answer, p. 3). In essence, the Examiner's argument is that because it is **possible** that tolerances may create a gap between the cross-section of the guide element and the cross-section of the recess, the "set apart" limitation of claim 1 is met by Hwang. However, there is absolutely no disclosure in Hwang that the guiding rods 24 are in fact "kept separate" from the receiving passage by a difference in cross-sectional sizes.

To the extent that the Examiner is arguing that Hwang inherently discloses the "set apart" limitation since tolerances may create a gap between

the cross-section of the guide element and the cross-section of the recess, Applicants respectfully point out that to rely on inherency, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flows from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; and see *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int’f. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic **may occur** in the prior art does not establish the inherency of that result or characteristic. Clearly, the Examiner has at best merely pointed out the **possibility** of there being a gap between the cross-section of the guide element and the cross-section of the recess, and the Examiner has not established that the allegedly inherent gap *necessarily* flows from the teachings of Hwang.

In support of the rejection, the Examiner argues that col. 1, lines 46-53, and col. 2, lines 46-48 of Hwang support the conclusion that there is **necessarily** a difference in the diameters of the recess 14 and the guide 24 disclosed in Hwang, since such a difference in the diameters would make possible the movement between the first floatable connector and the corresponding second connector. However, the Examiner’s conclusion is not supported by the sections of Hwang cited by the Examiner.

First, col. 2, lines 46-48 of Hwang indicates that “[f]loatable means 30 is arranged the plug connector 20 such that when the plug connector 20 is moveable to the corresponding receptacle connector 10 when both are mated.” It is simply not clear what this statement means. Second, col. 1, lines 46-53 of Hwang indicates that “[f]loatable means arranged at least on the first connector such that when the first (floatable) connector is mated to the corresponding second connector of the second substrate, the first (floatable) connector is moveable respect to the corresponding second connector to compensate any

misalignment therebetween thereby ensuring an electrical connection between the first and second connectors.” Col. 1, lines 46-53 does not give any indication regarding how the relative movement between the first and second connectors. However, col. 2, lines 57-60 indicates that “[t]he height of the stem 33 is larger than the thickness of the printed circuit board 40[,] thereby the plug **connector 20 may freely move or be floatable [with] respect to the printed circuit board 40.**” Furthermore, Fig. 5 illustrate an example of an inadvertent offset between the connector 20 and the circuit board 40. When read together, col. 1, lines 46-53, col. 2, lines 46-48 and 57-60, and Fig. 5 of Hwang support the conclusion that floatable means 30 allows the entire plug connector 20 to move or “float” with respect to the substrate 40 to which the connector 20 is attached, so that the plug connector 20 can be aligned with the receptacle connector 10 even if there is an offset between the plug connector 20 and the attached substrate 40. However, there is no reasonable interpretation of the disclosure of Hwang that would support the Examiner’s conclusion that the difference in the diameters of the recess 14 and the guide 24 necessarily have to exist in view of the overall teaching of Hwang, thereby satisfying the limitation of claim 1 that **“in an inserted state the recess is set apart from the guide element.”**

For the foregoing reasons, Applicants submit that Hwang does not anticipate Claim 1 or its dependent Claim 2, 4, and 5 under 35 U.S.C. § 102(e). Reversal of this rejection is respectfully requested.

B. THE REJECTION OF CLAIMS 3 AND 6 UNDER 35 U.S.C. § 103(a)

Claims 3 and 6 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the Hwang reference in view of United States Patent No. 6,358,067 to Takase et al. (“Takase”). Applicants respectfully submit that the rejection should be reversed for the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). Among the criteria that need to be satisfied in order to establish prima facie obviousness, the prior art references must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

In support of the rejection of claims 3 and 6, which depend from claim 1, the Examiner makes the following argument in the Examiner's Answer: "while Hwang . . . does not suggest the cam, round configuration of the guide element, that configuration is generally available in the art (the rejection used Takase . . . as an example)." (Examiner's Answer, p. 4). As explained above in detail in connection with the anticipation rejection of claim 1, Hwang clearly does not disclose or suggest a recess being dimensioned so that "in an inserted state the recess is set apart from the guide element," as recited in claim 1. Similarly, Takase also fails to disclose or suggest a recess being dimensioned so that in an inserted state the recess is set apart from the guide element. Accordingly, even if one assumes for the sake of argument that there is some motivation to combine the teachings of Hwang and Takase, the combination would fail to teach or suggest a recess being dimensioned so that "in an inserted state the recess is set apart from the guide element," as recited in parent claim 1. For at least these reasons, the combination of Hwang and Takase fails to render dependent Claims 3 and 6 obvious under 35 U.S.C. §103(a). Accordingly, reversal of the obviousness rejection is respectfully requested.

CONCLUSION

For the preceding reasons, it is respectfully submitted that the rejection of claims 1, 2, 4 and 4 under 35 U.S.C. § 102(b), as well as the rejection of claims 3 and 6 under 35 U.S.C. § 103(a), should be reversed.

Respectfully submitted,
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Dated: 11/4, 2003

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